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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/871,318
Filing Date: May 31, 2001
Appellant(s): FIKSTAD ET AL.

Matthew Fedowitz
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/12/09 appealing from the Office action mailed 12/12/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

An Appeal in the instant Application was decided on August 27, 2008 under Appeal No. 2008-3445.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 14, 18, 19 and 25-27.

Claims 3-5, 17, 22-24 and 28-40 should be withdrawn from consideration in light of the Board's decision dated August 27, 2008. These rejection of these claims was supported by the Board and as such these claims should be withdrawn and or canceled.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

A substantially correct copy of appealed claims 14, 18, 19 and 22-27 appears on page 19 of the Appendix to the appellant's brief. The minor errors are as follows: claims 3-5,17 and 28-40 should be canceled or withdrawn per the previous Board decision dated August 27, 2008.

(8) Evidence Relied Upon

5,662,925	EBERT	9-1997
6,203,817	CORMIER	5-2001
6,323,232	KE	11-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 14, 18, 19 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined disclosures of Ebert et al (USPN 5,662,925 hereafter '925) in view of

Cormier (USPN 6,203,817 hereafter '817) and Ke et al (USPN 6,323,232 hereafter '232), for the reasons set forth in the BPAI decision mailed 10/27/2008 and reiterated herein.

The '925 patent discloses a transdermal delivery device comprising an backing layer, an active agent, a reservoir, a peel seal disc, a heat seal, an adhesive overlay and a removable release liner (Figure 1, col. 2, lin. 60 to col. 3, lin 10). The reference is however silent to the inclusion of lasofoxifene. It would have been well within the level of skill in the art to include a transdermal lasofoxifene formulation into the device as shown in the '817 and '232 patent.

The '817 patent discloses a transdermal formulation comprising an adhesive matrix reservoir (abstract). The transdermal attached to the skin and comprises an adhesive overlay (part 22), a backing layer attached to the overlay (part 14), a reservoir under said backing layer (part 12), an optional active agent-permeable layer under said reservoir, a further disc layer (part 24), and a release liner (not pictured) (column 9, line 21-60). The device is further sealed to prevent leakage (column 9, line 30-35). The transdermal device further comprises permeation enhancers such as ethanol or propylene glycol (column 10, lines 5-29; examples). The transdermal comprises a gel matrix comprising gelling agents such as hydroxypropylcellulose and colloidal silicone dioxide (column 10, lines 22-39). The transdermal formulation delivers various active agents including antiestrogen and antiosteoporotic agents such as tamoxifen and raloxifene (column 7, lines 66-68; column 8, lines 9-12). The reference however lacks a disclosure of lasofoxifene, a similar antiestrogen agent.

The '232 patent discloses a combination of active agents in a transdermal comprising including lasofoxifene and other estrogen agonists/antagonist (claim 1). Among other agents used in the combination therapy are droloxifene, raloxifene and tamoxifen (column 6, lines 35-

40). The transdermal formulation comprises propylene glycol and is sterile (column 37, lines 38-52). These agents are identical to those preferred in the '817 patent and act as functional equivalents of each other. It would have been obvious to include the lasofoxifene of the '232 patent into the device of the '817 patent since they comprise similar components, and are within the same field of endeavor.

It would have been obvious to a person of ordinary skill in the art to combine the device of '925 patent with the transdermal administration of lasofoxifene shown in the '817 and '232 patents since Ebert discloses that the device is useful for the administration of a variety of agents including estradiols (col. 4, lin. 20). This combination thus amounts to the predictable use of prior art elements according to their established functions. *See KSR*, 127 S Ct. at 1740.

(10) Response to Argument

The Declaration under 37 CFR 1.132 filed 10/27/08 is insufficient to overcome the rejection of claims 14, 18, 19 and 25-27 based upon USC 103(a) as set forth in the last Office action because: the assertions presented in this affidavit are not commensurate in scope with the instant claims or the prior art. The affidavit of Dr. Coop is an opinion Affidavit by an unrelated party and does not effectively compare the closest prior art or attempt to show an unexpected results with regard to the instant claims. The affidavit does not address the specific physical features of the transdermal device of the instant claims, nor any surprising or unexpected results incumbent to the device of the instant claims. The declaration puts forth arguments that have been previously presented throughout the prosecution history, namely that the structures of lasofoxifene, droloxifene, raloxifene and tamoxifen are all so structurally different and distinct that there would no way to predictable substitute any of these compounds with one another in a

transdermal formulation. For clarification the Board has previously determined that these arguments when presented by Applicant in the previous Appeal Brief were not deemed persuasive. Dr. Coop relied on the different chemical structures to determine that no predictable substitution can be made, however the Ke and Cormier patent each disclose several of these compounds listed together and in alternative formulations within their respective disclosures. If the Ke of Cormier patents only disclosed a singular compound, than their differing structures might present a level of predictability and nonobviousness, at most making a substitution obvious to try since each compound has a common function and solve the same problem. However the Ke patent discloses lasofoxifene, droloxifene, raloxifene and tamoxifen all within the same disclosure overcoming the alleged unpredictability of making these substitutions. The Cormier patent discloses two of the four compounds of Ke as useful in the specific gel formulation, again overcoming the alleged difficulty and unpredictability of the substitution. The rejection of obviousness is not made over a single compound being substituted for a single compound but rather based on a pattern of common application of these related compounds. The prior art has solved the alleged problems asserted by the Coop declaration by provided multiple formulations comprising a variety of active agents all with different chemical structures yet similar function and purpose. For these reasons the Declaration of Dr. Coop is insufficient to overcome the obviousness rejection, and as such the claims remain obviated.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the

time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The Ke patent does not disclose a transdermal form of lasofoxifene that would be obvious to use in the claims under appeal.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Specifically the Ke patent is relied upon for its' disclose of lasofoxifene specifically and its use in a transdermal formulation in general. The Ke patent is ***not*** relied upon as an anticipatory disclosure of the specific adhesive drug reservoir formulation of the instant claims. Applicant is reminded that the rejection is written such that the claims are obvious in view of Ebert in view of Cormier in further view of Ke. Ke is attacked as the primary reference when the rejection has not, nor has it ever been addressed as such. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an uninterrupted therapy and reversibility of treatment) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The specific transdermal carrier formulation and application device disclosed by the Cormier and Ebert patent respectively. However regarding Ke, the patent discloses a pharmaceutical composition including lasofoxifene (claim 1). Other

preferred estrogen agonists/antagonist includes raloxifene and tamoxifen (col. 3, lin. 49). The Ke patent discloses transdermal dosage forms (col. 37, lin. 49-52).

The Cormier patent discloses the specific transdermal carrier composition of the instant claims. The patent discloses compositions devices and methods for transdermal administration of drugs (col. 5, lin. 20-02). The patent discloses drugs such as tamoxifen and raloxifene (col. 7, lin. 66-67). Cormier discloses a matrix reservoir for the drug that can be pressure sensitive (col. 9, lin. 61). It remains the position of the Examiner that it would have been obvious to combine the lasofoxifene of the Ke patent into the Cormier patent since the patent also discloses the transdermal delivery of tamoxifen and raloxifene. This is not as applicant asserts solely based on the presumption that compounds of similar properties can simply be substituted, without consideration of their chemical structure. In fact it is due to these different chemical structures, and their disclosures as useful in the patents that the substitution can be made. As discussed above the prior art has solved the problem of incorporating differently structured chemical compounds into similar carrier formulations. The Ke patent envisions a transdermal formulation comprising not only lasofoxifene, but also tamoxifen, and raloxifene. As applicant has argued these compounds all have different and distinct chemical structures, and properties, however Ke has somehow found a way for these different and distinct compounds to be formulated into a transdermal preparation. Likewise the Cormier patent discloses the specific transdermal carrier formulation of the instant claims comprising tamoxifen or raloxifene. The Cormier patent also salves the problem of incorporating different and distinct chemical compounds into a transdermal formulation. These patents establish the level of skill in the art regarding incorporating different

and distinct chemical compounds into transdermal formulations that are used for the same purpose.

It remains the position of the Examiner that based on the disclosures of the Cormier patent in view of the Ke patent it would have been obvious to combine lasofoxifene into a specific transdermal gel formulation since the raloxifene and tamoxifen were also formulated into the same formulation. It would have been obvious to one of ordinary skill in the art to administer lasofoxifene, like raloxifene and tamoxifen, transdermally via an adhesive drug matrix as taught by Cormier. In view of *KSR Int'l Co. v. Teleflex Inc.,* 127 S. Ct. 1727, 1739 (2007), this combination is merely a combination of familiar elements according to a know method and are likely to obvious yielded predictable results. Ke expressly suggests transdermal administration of a composition that can contain lasofoxifene, raloxifene or tamoxifen. Cormier describes an adhesive drug matrix that includes raloxifene and tamoxifen. The evidence shows that it would have been well within the level of skill of an artisan to formulate the lasofoxifene of Ke in Cormier's matrix for transdermal administration. This combination would have been nothing more than a combination of old elements for their expected function to yield a predictable result.

Individual drugs from a pharmaceutical class do not render the use of another drug from the same class obvious when they are chemically unrelated.

It appears Applicant is no longer asserting argument related to the rejection or art of record. Applicant is directed to the Board decision dated August 27, 2008 of which the Examiner agrees that the formulation of lasofoxifene of Ke in the formulation of Cormier would have been prima facia obvious in view of the evidence of the prior art. The alleged

unpredictability of the formulation art has been taken into account and solved by the prior art as evidenced by the expressed suggestions and disclosures of transdermal formulations comprising lasofoxifene, raloxifene or tamoxifen. Regardless of the differing chemical structures, the Board have previously ruled that this substitution would have been obvious based on the facts that the Cormier and Ke patents both disclose transdermal formulations comprising lasofoxifene, raloxifene or tamoxifen. As discussed above, the alleged difficulties asserted by the Coop Declaration have been effectively solved by the Prior art. The compounds are well known in the art, and are not being presented as novel or non-obvious. Their activity, properties, pharmacology and structures have been well known and predicted. The prior art provides transdermal formulation overcoming the pH, solubility, and other formulation problems present in any pharmaceutical formulation. The rejection of the instant claims in not an attempt to make a generalization regarding all chemical compounds with similar activity, and the obviousness of all compounds within a class. The rejections of the instant claims over Ebert in view of Cormier in further view of Ke is specifically related to the obviousness over a transdermal lasofoxifene formulation in a specific gel carrier formulation. As discussed above and throughout the prosecution history, the Cormier patent provides an identical transdermal carrier formulation where the drug compounds are raloxifene or tamoxifen. The Ke patent expressly suggests a transdermal formulation comprising lasofoxifene, raloxifene or tamoxifen. Despite their differing chemical structures, Cormier has obviously accounted for these differences in structure in order to provide transdermal formulations comprising either raloxifene or tamoxifen. As such it would have been obvious to also incorporate the lasofoxifene of Ke into the formulation. The

results would have been predictable. Predictable in that each transdermal formulation would be effective for treating the same disorders, and would have been stable.

The Examiner failed to afford proper weight to the declaration submitted on October 27, 2008.

Again Applicant is not arguing the merits of the instant claims. The Final rejection dated December 12, 2008, under the heading ***Response to Amendment*** the merits of the Declaration were discussed. Applicant is also directed to the above discussion of the merits of the October 27, 2008 Declaration. As discussed above the Declaration reiterates the same arguments presented throughout the prosecution history, namely that the structures of the lasofoxifene and the related compounds are so different that it would not have been obvious to substitute one compound for the other, and the results would have been unpredictable. The merits of claim 14 were not discussed in the declaration. None of the specific elements of the transdermal device (i.e. peal disk, release liner, backing layer, etc.) were discussed in the opinion affidavit, only the problems with substituting one compound for another. As such the Declaration was and remains insufficient to overcome the rejection of claims 14, 18, 19 and 22-27. For these reasons the claims remain obviated.

(11) Related Proceeding(s) Appendix

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/MICAH-PAUL YOUNG/

Examiner, Art Unit 1618

Conferees:

/Michael G. Hartley/

Supervisory Patent Examiner, Art Unit 1618

/SREENI PADMANABHAN/

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